

ABSTRACT OF THE DISCLOSURE

The present invention realizes strengthening of a ground of a lower-surface ground electrode of an upper semiconductor chip and miniaturization in a semiconductor module on which two semiconductor chips are mounted in a stacked manner. A lower semiconductor chip is fixed to a bottom of a recess formed in an upper surface of a module board, and an upper semiconductor chip is fixed to an upper surface of a support body made of conductor which is formed over the upper surface of the module board around the recess. External electrode terminals and a heat radiation pad are formed over a lower surface of the module board. A plurality of vias which are connected to the heat radiation pad are formed in the bottom of the recess. The support body is formed over the vias connected to the heat radiation pad. The heat radiation pad assumes a ground potential. On the upper surface of the module board, chip-like electronic parts such as chip resistances, chip capacitors and chip fixed coils are mounted. The semiconductor chip is connected to wiring of the module board by conductive wires. A lower-face ground electrode of an upper semiconductor chip is connected to the heat radiation pad which assumes the ground potential through the vias.